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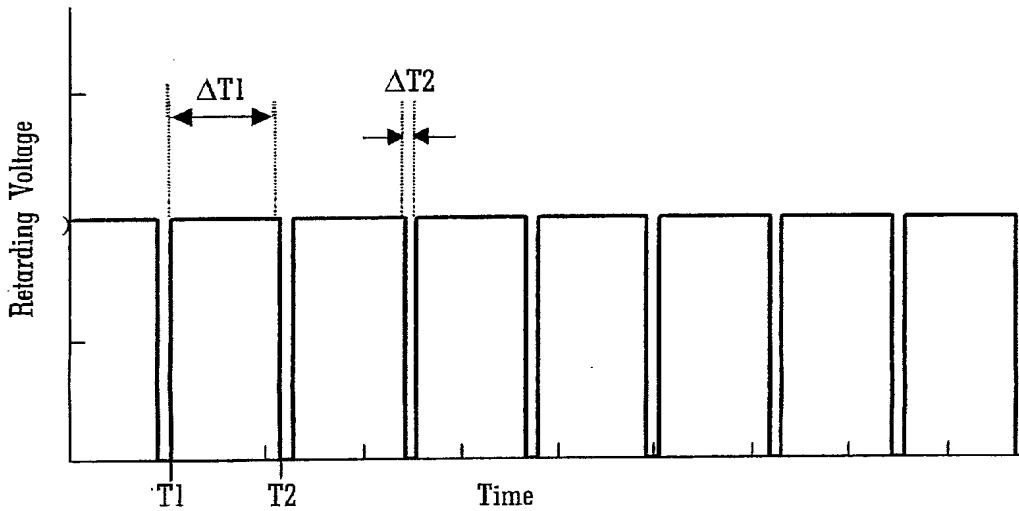
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(54) Title: MASS SPECTROMETER



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(57) Abstract: A mass spectrometer is disclosed comprising an ion beam attenuator which attenuates an ion beam repeatedly switching between a zero transmission mode of operation during a time period ΔT_1 and a non-zero transmission mode of operation during a time period ΔT_2 . The degree of attenuation of the ion beam can be varied by varying the mark space ratio $\Delta T_2/\Delta T_1$. The ion beam attenuator may release ions in packets or pulses but the packets or pulses of ions may be converted into a continuous ion beam by a relatively high pressure ion guide or gas collision cell arranged downstream of the ion beam attenuator.



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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